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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,870	03/04/2002	J. Alan Lawson	17308-0019	5875

29052 7590 05/10/2005

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EXAMINER

ALVO, MARC S

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 05/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090.870

Applicant(s)

LAWSON ET AL

Examiner

Steve Alvo

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 10-47 is/are pending in the application.
- 4a) Of the above claim(s) 25-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

The restriction requirement was made Final in the office action of September 15, 2004.

The non-elected claims should be cancelled.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 10-16 and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over JAGANNADH, et al.

JAGANNADH, et al teaches applying a direct current electric field (abstract) to a decontamination cell (deinking cell) 1, wherein the pulp slurry (14) is diluted (22) to a consistency of 0.8 to 6.0% (column 7, lines 63-66) to form a slurry of recycled cellulosic wood fibers (fluid) which passes through the deinking chamber and exits out the other side in a continuous manner (column 4, lines 43-45). A portion of the contaminants are separated from the fibers as the slurry flows through the deinking chamber (column 4, lines 22-29). Any difference would have been an obvious modification of JAGANNADH, et al. See column 8, lines 57-59 for recycling newspapers. See Figures 2-7 for different arrangements of anodes and cathodes with the pulp slurry flowing in between. See Figure 2D for tapered anode and cylindrical housing. If necessary the shape of the container or the relationship between the anode and cathode would have been an obvious design modification. See Figures 6A and 6B for cells having "T" or "L" shapes. See column 4, lines 2-26 for creating gas bubbles which causes flotation of the contaminants and column 4, lines 64-67 for adding air into the slurry.

JAGANNADH, et al teaches treating the same material (waste paper) in the same manner with (direct current electric field applied between an anode and a cathode) for the same purpose, (to remove ink and other contaminants from the paper). The amount of voltage required by JAGANNADH, et al would be the same as that claimed as it is being used for the same purpose in the same environment. It would have been obvious to provide the optimum amount of voltage to provide the optimum deinking of the paper. It would have been obvious to optimize the size of the air bubbles introduced at the bottom of storage tank 12 or created in vessel 18. See column 7, lines 46-58 for the velocity of the fluid (waste paper slurry).

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JAGANNADH, et al as applied to claim 1 above, and further in view of LAWSON (5,733,413) or LAWSON et al (6,139,684) or MARKHAM (5,580,446).

LAWSON or LAWSON et al or MARKHAM teach using a light contamination collecting hood in fluid communication with a decontamination chamber which effects light contaminant purging by creating a flow gradient within the chamber between turbulent flow adjacent to the inlet end and laminar flow adjacent to the outlet end. It would have been obvious to further separate the light contaminants of JAGANNADH, et al using the collecting hood and flow of LAWSON or LAWSON et al or MARKHAM.

The argument that co-inventor Dr. Jeffrey Hsieh stated that the JAGANNADH Patent did not use electric fields greater than 800 volts per inch for electrolytic flotation is not convincing for the following reasons:

- 1) The statement is not in the form of a Declaration.

2) The electric field generated by JAGANNADH et al is not limited to flotation or to the particular anodes used (column 4, lines 53-56). JAGANNADH et al further teaches that the electric field mobilizes the ink particles and coagulates the ink particles through electro-coagulation (column 4, lines 26-28). It would have been obvious to the routineer that the stronger the direct current would provide greater and faster and electro-coagulation. As set forth above, the amount of voltage required by JAGANNADH et al would be the same as that claimed as it is being used for the same purpose in the same environment. JAGANNADH et al teaches treating the same material (waste paper) in the same manner with (direct current electric field applied between an anode and a cathode) for the same purpose, (to remove ink and other contaminants from the paper). It would have been prima facie obvious to optimize the amount of the rate effective variable, e.g. direct current, applied. Applicant as JAGANNADH et al uses gas bubbles to remove the contaminants, see the instant specification, page 9, lines 17-19.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Alvo whose telephone number is 571-272-1185. The examiner can normally be reached on 5:45 AM - 2:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steve Alvo
Primary Examiner
Art Unit 1731

msa